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/THIS PROGRAM SOURCE FILE IS SUPPLIED IN CONFIDENCE TO THE  
/CUSTOMER; THE CONTENTS OR DETAILS OF ITS OPERATION MAY  
/ONLY BE DISCLOSED TO PERSONS EMPLOYED BY THE CUSTOMER WHO  
/REQUIRE A KNOWLEDGE OF THE SOFTWARE CODING TO CARRY OUT  
/THEIR JOB. DISCLOSURE TO ANY OTHER PERSON MUST HAVE PRIOR  
/AUTHORISATION FROM THE DIRECTORS OF REDAC SOFTWARE LIMITED.  
/  
/ SUBROUTINE READRT  
/CALL READRT(ROOT(1),DELIND,POINTER)  
/ IF DELIND =0 READ OUT IS DESTRUCTIVE.  
/ ON EXIT ACC. CONTAINS STATUS BIT (0 INVALID, 1 VALID)  
/EDITED FOR REDAL 14 14/9/72

PAGE	2	READRT	SRC	READRT
18				.TITLE READRT
19				.GLOBL READRT,.DA
20	00000	R	000000	A ROUTE .CBD ROUTE 1
21	00001	R	000000	A COPPER .CBD COPPER 1
22	00002	R	000000	A EORT .CBD EORTAD 1
23	00003	R	000000	A EOCOPP .CBD EOCPAD 1
24	00004	R	740040	A READRT XX
25	00005	R	120176	E JMS* .DA
26	00006	R	600012	R JMP .+1+3
27	00007	R	000000	A ROOTAD 0 /BUFFER FOR ROOT
28	00010	R	000000	A INDAD 0
29	00011	R	000000	A PTADD 0 /RELATIVE POINTER
30	00012	R	220000	R LAC* ROUTE
31	00013	R	040174	R DAC RTAD#
32	00014	R	220001	R LAC* COPPER
33	00015	R	040171	R DAC COPPAD#
34	00016	R	220011	R LAC* PTADD /REL. POINTER
35	00017	R	741100	A SPA
36	00020	R	600026	R JMP CPPER /COPPER
37	00021	R	200002	R LAC EORT
38	00022	R	040173	R DAC EORAD#
39	00023	R	220011	R LAC* PTADD
40	00024	R	340174	R TAD RTAD
41	00025	R	600033	R JMP .+6
42	00026	R	200003	R CPPER LAC EOCOPP
43	00027	R	040173	R DAC EORAD
44	00030	R	220011	R LAC* PTADD
45	00031	R	740031	A TCA
46	00032	R	340171	R TAD COPPAD
47	00033	R	340177	R TAD (-1
48	00034	R	040157	R DAC ROUTAD
49	00035	R	140172	R DZM COUNT#
50	00036	R	750001	A CLC
51	00037	R	040175	R DAC STAT#
52	00040	R	200157	R LAC ROUTAD
53	00041	R	340177	R TAD (-1
54	00042	R	060200	R DAC* (10 / ROUTES(POINTER-1) ADDR
55	00043	R	040157	R DAC RSTART
56	00044	R	200007	R LAC ROOTAD
57	00045	R	340177	R TAD (-1
58	00046	R	060201	R DAC* (11 / ROOT(0) ADDR
59	00047	R	220010	A LAC* 10
60	00050	R	741100	A SPA
61	00051	R	140175	R DZM STAT
62	00052	R	040160	R DAC DUMP
63	00053	R	640512	A LRS 12 / SHIFT 10
64	00054	R	500202	R AND (77 / 6 BITS
65	00055	R	060011	A DAC* 11 / NO OF POINTS
66	00056	R	040164	R DAC NPOINTS
67	00057	R	200160	R LAC DUMP
68	00060	R	500203	R AND (1777 / 10 BITS
69	00061	R	040162	R DAC X1

PAGE	3	READRT	SRC	READRT
70		00062	R 060011 A	LAC* 11
71		00063	R 220010 A	LAC* 10
72		00064	R 040161 R	DAC GAPP
73		00065	R 500203 R	AND (1777 / 10 BITS
74		00066	R 060011 A	DAC* 11
75		00067	R 040163 R	DAC Y1
76		00070	R 200164 R	LAC NPOINTS
77		00071	R 740001 A	CMA
78		00072	R 340204 R	TAD (2 / -NO OF SEGS
79		00073	R 040164 R	DAC NPOINTS
80		00074	R 440172 R	LOOP ISZ COUNT
81		00075	R 220010 A	LAC* 10
82		00076	R 040160 R	DAC DUMP
83		00077	R 740100 A	SMA
84		00100	R 600106 R	JMP .+6
85		00101	R 200175 R	LAC STAT
86		00102	R 741200 A	SNA
87		00103	R 600106 R	JMP .+3
88		00104	R 200172 R	LAC COUNT
89		00105	R 040175 R	DAC STAT
90		00106	R 200160 R	LAC DUMP
91		00107	R 640514 A	LRS 14
92		00110	R 500205 R	AND (17
93		00111	R 060011 A	DAC* 11 / LAYER
94		00112	R 200160 R	LAC DUMP
95		00113	R 640512 A	LRS 12
96		00114	R 500206 R	AND (3
97		00115	R 040165 R	DAC MODE / TYPE OF SEGMENT
98		00116	R 240206 R	XOR (3
99		00117	R 740200 A	SZA
100		00120	R 600131 R	JMP XORY /RECTILINEAR ROUTE
101		00121	R 200160 R	LAC DUMP / ANGLED ROUTE
102		00122	R 500203 R	AND (1777
103		00123	R 060011 A	DAC* 11
104		00124	R 040162 R	DAC X1
105		00125	R 220010 A	LAC* 10
106		00126	R 060011 A	DAC* 11
107		00127	R 040163 R	DAC Y1
108		00130	R 600152 R	JMP FINISH
109		00131	R 200165 R	XORY LAC MODE
110		00132	R 500207 R	AND (1
111		00133	R 740200 A	SZA
112		00134	R 600144 R	JMP MODE1 / MODE=1
113		00135	R 200162 R	LAC X1
114		00136	R 060011 A	DAC* 11
115		00137	R 200160 R	LAC DUMP
116		00140	R 500203 R	AND (1777
117		00141	R 060011 A	DAC* 11
118		00142	R 040163 R	DAC Y1
119		00143	R 600152 R	JMP FINISH
120		00144	R 200160 R	MODE1 LAC DUMP
121		00145	R 500203 R	AND (1777

PAGE	4	READRT SRC	READRT
122		00146 R 060011 A	DAC* 11
123		00147 R 040162 R	DAC X1
124		00150 R 200163 R	LAC Y1
125		00151 R 060011 A	DAC* 11
126		00152 R 440164 R	FINISH ISZ NPOINTS
127		00153 R 600074 R	JMP LOOP
128		00154 R 200175 R	LAC STAT
129		00155 R 740001 A	CMA
130		00156 R 620004 R	JMP* READRT /EXIT
131		00157 R 000000 A	ROUTAD 0
132		000157 R	RSTART=ROUTAD
133		00160 R 740040 A	DUMP XX
134		00161 R 740040 A	GAPP XX
135		00162 R 740040 A	X1 XX
136		00163 R 740040 A	Y1 XX
137		00164 R 740040 A	NPOINTS XX
138		00165 R 740040 A	MODE XX
139		00166 R 740040 A	PPLUS XX
140		00167 R 740040 A	PMIN XX
141		00170 R 740040 A	NOFCN XX
142		000000 A	.END
		00176 R 000176 E	*E
		00177 R 777777 A	*L
		00200 R 000010 A	*L
		00201 R 000011 A	*L
		00202 R 000077 A	*L
		00203 R 001777 A	*L
		00204 R 000002 A	*L
		00205 R 000017 A	*L
		00206 R 000003 A	*L
		00207 R 000001 A	*L
		SIZE=00210	NO ERROR LINES

PAGE 5 READRT CROSS REFERENCE

COPPAD	00171	33	46						
COPPER	00001	21*	21	32					
COUNT	00172	49	80	88					
CPPER	00026	36	42*						
DUMP	00160	62	67	82	90	94	101	115	120
		133*							
EOCOPP	00003	23*	42						
EORAD	00173	38	43						
EORT	00002	22*	37						
FINISH	00152	108	119	126*					
GAPP	00161	72	134*						
INDAD	00010	28*							
LOOP	00074	80*	127						
MODE	00165	97	109	138*					
MODE1	00144	112	120*						
NOFCN	00170	141*							
NPOINT	00164	66	76	79	126	137*			
PMIN	00167	140*							
PPLUS	00166	139*							
PTADD	00011	29*	34	39	44				
READRT	00004	18	19	24*	130				
ROOTAD	00007	27*	56						
ROUTAD	00157	48	52	131*	132				
ROUTE	00000	20*	20	30					
RSTART	000157	55	132*						
RTAD	00174	31	40						
STAT	00175	51	61	85	89	128			
XORY	00131	100	109*						
X1	00162	69	104	113	123	135*			
Y1	00163	75	107	118	124	136*			
.DA	00176	19	25						